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REMARKS

Upon entry of the above amendment, the claims will be 17 to 32.

The above amendment is responsive to points set forth in the Official Action.

In this regard, a new set of claims is presented, i.e. claims 17 to 32 which are based on previous claims 1 through 16, respectively.

Applicants acknowledge with appreciation the allowance of claim 12 and the indication that claims 13 to 16 would be allowable if rewritten in independent form. For reasons set forth below, however, it is considered that all of the claims in this application are now in condition for allowance.

With regard to allowable claim 12, this has been rewritten as new claim 28. In this regard, there was a minor error in previous claim 12 because it is the aqueous dispersion which is free from addition polymerization photoinitiator and not the surface layer which has no antecedent basis in claim 12. New claim 28 is free from this problem.

With regard to the rejection of claims 1 to 16 under 35 USC 112, the term "a smooth-film formed and film surface" in claims 1, 9 and 12 has been rejected as confusing and the Examiner has helpfully suggested amending the term to "a smooth film surface". This has been accomplished in claims 17, 25 and 28 which replace previous claims 1, 9 and 12, respectively.

Claims 1 to 5 and 9 have been rejected under 35 USC 102(b) as anticipated by Mehta (US 5,219,641) for reasons of record.

Further, claims 6 to 8, 10 and 11 have been rejected under 35 USC 103 as being unpatentable Mehta (above) in view of Kaburaki et al. (US 5,047,286). This rejection is respectfully traversed.

As explained in the response of December 21, 2000, the films of the present invention are designed to improve adhesion between films and radiation cured inks. Hence it is important that the surface layer be 1) free of photoinitiator and 2) that the surface be receptive to such inks. Films of the present invention, when printed with radiation curable inks, create prints of improved hardness and water resistance.

The key features of the present invention thus are:

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- the absence of photoinitiator in the film - which would otherwise make the film unuseable with radiation cured inks,
- the water dispersable polymer - which provides a smooth surface for printing and
- the ethylenically unsaturated compound (reaction product as described) - which acts both to plasticize the polymer and to cross-link with the ink when the ink is printed thereon and irradiated.

Mehta relates to the completely different field of substrates receptive to thermal transfer images where the printing ink is not affected by radiation. The coatings described in Mehta are radiation curable and therefore unuseable with radiation curable inks. These coatings comprise monomer or oligomer components which are polymerized *in situ* by radiation to form a polymeric coat. Mehta does not disclose or suggest water dispersable polymers but rather a coating containing polymer precursors (the monomers or oligomers) which only form a polymeric coat after radiation curing.

Thus, Mehta discloses a film where radiation is used to cure the coat and then ink is applied thereto by heating (thermal transfer), whereas in the present invention the (pre-cured) polymer surface layer is printed with ink and then the ink is hardened and fixed to the film by subsequent irradiation.

New claim 17 (which replaces claim 1) makes it clear that the film must be capable of being printed with radiation curable ink, and the surface layer as such cannot be further self-polymerized with radiation. These amendments have basis, for example, on page 1, line 9 and on page 2, line 24 of the present application and are made to emphasize the above distinctions between the films of the invention and those of Mehta. The wording of claim 17 has been made consistent with claim 9.

Although in the new Claim 17, it is made explicit that the surface layer as such cannot be further polymerized by radiation, this must be distinguished (and the above amendment is not intended to exclude) films of the present invention from undergoing cross-linking reactions with added cross-linkers and added radiation curable inks. For example the ethylenic groups in the surface layer react under radiation with further ingredients such as cross-linkers and/or radiation

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curable inks, to form a hardened film surface with an ink firmly attached thereto. These cross-linking type reactions are not considered to be "polymerization". In the absence of an addition photoinitiator or any other ingredients, the surface layers of the present invention do not polymerize on exposure to radiation.

Kaburaki does not overcome the above-discussed deficiencies of Mehta.

As evident from the above discussion, Mehta relates to a very different type of film than Kaburaki which relates to sheets for printing with UV ink. A person concerned with thermal transfer receptive paper with an uncured coating thereon (to be radiation cured) such as Mehta would not likely consider and import any features from a document (such as Kaburaki) relating to substrates for radiation cured inks within an ink receptive polymer layer.

While the rejection states that it would be obvious to print the film of Mehta as taught by Kaburaki, this would go against the very basis of Mehta which relates to an improved substrate receptive to thermal transfer images and hence thermal transfer printing is an essential part of Mehta's disclosure.


For the foregoing reasons, it is apparent that the rejections on prior art are untenable and should be withdrawn.

No further issues remaining, allowance of this application is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact undersigned at the telephone number below.

Respectfully submitted,

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